

WHAT IS CLAIMED IS:

1. A method for compressing a Global Positioning System (GPS) signal, comprising:
removing a carrier component of the GPS signal;
5 matching a comb filter to the GPS signal to obtain a first output comprising filter
lines; and
frequency shifting the filter lines in the first output to produce a compressed GPS
signal.

10 2. The method of claim 1, further comprising frequency shifting the compressed GPS
signal to produce a second compressed GPS signal.

15 3. The method of claim 2, wherein the matching of the comb filter comprises:
sending a signal from a remote location to the GPS receiver via a wireless
communications link;
applying the signal from the remote location to the comb filter, wherein the signal
shifts the comb filter to an expected location of the filter lines of the first output.

20 4. The method of claim 3, wherein the frequency shifting of the filter lines comprises
mixing the filter lines with at least one output of a frequency generator.